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(54) Title: PROCESS FOR THE PRODUCTION OF AN ASSEMBLY COMPRISING SEVERAL SILICONE ELEMENTS CROSSLINKED BY POLYADDITION AND ADHERING FIRMLY TO ONE ANOTHER

(57) Abstract: The invention relates to a process for the production of an assembly comprising several silicone elements crosslinked by the polyaddition of ≡Si-H units onto ≡Si-alkenyl (preferably ≡Si-vinyl) units, said elements adhering firmly to one another without detracting from the mechanical properties of the crosslinked silicone elements. Said process comprises the following essential steps: (I) forming (1st coating) a silicone element (i) with a liquid silicone preparation (i) comprising polyorganosiloxanes (POS) A with ≡Si-vinyl units, (POS) B with ≡Si-H units, a platinum catalyst C, optionally a ≡Si-vinyl POS resin D, optionally a crosslinking inhibitor E, optionally an adhesion promoter F, optionally a mineral filler G, optionally a functional additive H for imparting specific properties; (II) crosslinking in such a way that (i) has a surface density SD of unreacted, residual vinyl, per nm², of 0.0100 ≥ SD ≥ 0.0040; (III) optionally repeating steps (I) and (II) n times (n = positive integer) to give n elements (i) that adhere to one another; (IV) forming (2nd coating) a silicone element (ii) with a liquid silicone preparation (ii) of the same type as that described above; (V) crosslinking to give crosslinked (ii) that adheres to (i). Application to the production of multilayer silicone coatings.